

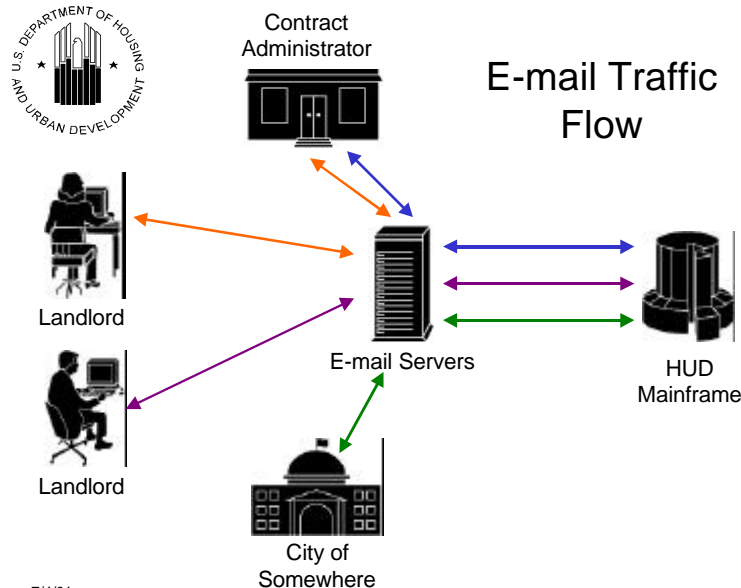
TRACSMail Interim Industry Specification Document

A TRACSMail Interim Industry Specification Document (IISD) was prepared for the Industry to use in their software development for communications via TRACSMail. TRACSMail will be available in production starting October 1, 2001. TRACSMail will support TRACS 201A and 201B.

SprintMail will continue to support TRACS 201A until December 31, 2001. The transition from SprintMail to TRACSMail must be accomplished before December 31, 2001. SprintMail will be discontinued starting January 1, 2002. Questions or comments concerning the IISD should be communicated to TRACS at TRACS@HUD.gov.

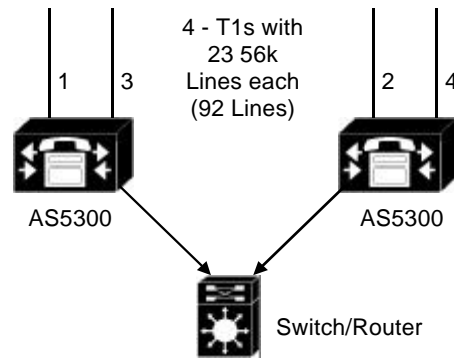
The TRACSMail Solution

The TRACSMail Solution will use iPlanet Messaging Server. It will allow for information to flow between all potential clients (i.e. landlord to Contract Administrator and Contract Administrator to HUD). The servers will be using IMAP4 (Internet Message Access Protocol). Therefore, the server and client software will need to comply with Internet E-mail Standards, SMTP (**RFC 821**) or IMAP4 (**RFC 2060**). IMAP4 is the preferred protocol.



The solution will provide for a modem speed capacity of 56K, with a total of 92 incoming lines, spread over two remote access servers, which will auto-negotiate the connection speed, based on speed of the client modem and the condition of the connection (noisy connections decrease the possible transmission speed).

Improved Dial-up Connectivity



7/4/01

9

Processing MAT files

We will be creating “fake” Sprint Mail headers on each MAT file attachment. This is necessary because if the MAT file were placed in-line in the e-mail as with the old Sprint Mail system, the header would be too verbose for the mainframe to process. Internet e-mail headers have more content than the TRACS system is expecting (**RFC 822**).

Another reason for MAT files to be processed as attachments is MIME. Multipurpose Internet Mail Extensions (MIME) will be used by default if standard e-mail clients are utilized (**RFC 2045**). Which results in content that is not limited to US-ASCII text, which is what TRACS is expecting.

Therefore, MAT files will be attachments, as you would see them in Outlook or Netscape Messenger. The attachments will need to be saved to disk before opening or processing. Software vendors may choose to automate the process of saving the attachment.

Below is an example of what a current MAT file header looks like going to HUD:
(The bolded text will be generated by scripts to emulate the Sprint Mail headers).

Posted: Thu, Mar 15, 2001 5:28 AM EST **Msg: SMAB-4180-3765**
From: TRACS20572 **3/15/ 1 5:48:31 0 RCVD**
To: TRACS.NCS(REC)
Text:
MATHR2.0.1.A0000103132001052737MPW3.2 NCR 1234 North DriveSomewhere
AZ43220000010000000000000000000000
000000000000000000000000000000007TRACS12345
MAT102.0.1.A0000210001000100##00010000
200003 0313200103132001Somewhere Apartments
045EH100WV15S9010011 7N
1234 0100000007050000##20000000000000007956000000000000795600000079561220012200
000000023700239000000000000000

470000000400000400075##023700420279000030E018901470000009003000N0301200201
04 000000 031320##03132
001NA0000000000000042001
30000401LastName FirstName LHF04011916E #####
400005##SS 07956
500006Daily C00070500000
MATND2.0.1.A00007

Below is an example of a TRACS TENANT DISCREPANCY DATA FILE going from HUD to a client:

Posted: Thu, Sep 28, 2000 5:55 AM EDT **Msg: RMAA-3962-5500**

From: TRACS.MMCOUT

To: TRACS12345

Subj: HUD CFS TRACS DATA 000908 102725

Text:

@*@ TRACS12345TRACS54321

User Defined :

Project Name : MAKANMAKANA HALE COOPERATIVE

Project No. : 14044021

Contract No. : HI10M000011

Unit No. : 1-13

SSN : 123803515

Name : DOE,JACKI L

Tenant No. :

Effective Date : 2000-08-01

Fatal Error : F0146

HOUSEHOLD MUST BE TERMINATED BEFORE AN INITIAL CERT CAN BE PROCESSED

Occupied Unit Number: 1-13

Occupied Project Number: 14044021

Occupied Contract Number:

@*@ TRACS12345TRACS54321

User Defined :

Project Name : MANNER YALE COOPERATIVE

Project No. : 14044021

Contract No. : HI10M000011

Unit No. : 1-31

SSN : 123132940

Name : JONES, JESSICA E

Tenant No. :

Effective Date : 2000-08-15

Fatal Error : F0146

HOUSEHOLD MUST BE TERMINATED BEFORE AN INITIAL CERT CAN BE PROCESSED

Occupied Unit Number: 1-31

Occupied Project Number: 14044021

Occupied Contract Number:

.

.

N

Recommended Hardware and Software Standards

The new e-mail solution requires dial-up networking and PPP capabilities. All major Operating Systems have Dial-up networking and PPP capabilities, they are as follows:

Windows 95/98/ME/NT/2000

Most versions of Linux

Unix

Macintosh

The following is a list of the RFCs for PPP:

- RFC - 1661 - defines the basic PPP frame
- RFC - 1334 - defines the Authentication Protocols for PPP
- RFC - 1994 - defines PPP Challenge Handshake Authentication Protocol (CHAP)
- RFC - 1989 - defines PPP Link Quality Monitoring

Hardware Standards:

Pentium Processor

32 MB RAM

2 Gigabyte Hard drive

NOTE: These specifications are for a single workstation computer. Check with your software vendor to obtain the hardware/software requirement for your operating environment.

E-mail Client Recommendations:

Netscape Messenger/Communicator is the recommended e-mail client as it is free and works across all operating system platforms. E-mail Clients that are not IMAP4 enabled are not recommended. However if necessary they can be used via SMTP. Perl as well as SMTP commands can be used to script or automate the e-mail process. Please see the chart on the following page for a summary of the major E-mail Clients available.

E-mail Client Settings*:

E-mail Address: Tracm#####@tracsmail.hud.gov

Mail Server name (outgoing): tracsmail.hud.gov

News (NNTP) Server: NONE

Dial-up Networking Settings*:

Phone Number: 1-800-862-1874

Dial-up Server Type: PPP; Windows NT, Windows 95 Plus, Internet

Network Protocols: TCP/IP, IP information will be provided via DHCP

*** This information is as of 7/5/01. It may be subject to change. Therefore it is recommended that answer files be used to provide this information when automation is important.**

E-mail Client	Manufacturer	Cost	Programming Languages	Internet Standards Enabled	Platforms
Netscape Messenger and Communicator	Netscape	Free	Java, API plug-ins	SMTP, POP3, IMAP4	Unix, Linux, MacIntosh, Windows 3.x/95/98/ME/2000/NT
Outlook 98/2000	Microsoft	\$109.00	Visual Basic	SMTP, POP3, IMAP4 , MAPI	Windows 98/ME/2000/NT
Outlook Express	Microsoft	Free with IE 5.5	Visual Basic	SMTP, POP3, IMAP4 , LDAP, HTML	Windows 95/98/ME, Windows NT/2000, Windows 3.x, Unix
Eudora	Qualcomm	\$39.95	EMS API plug-ins	SMTP, POP3, IMAP4	Windows 3.x/95/98/ME, Windows NT/2000, Macintosh
Pegasus 3.12c	David Harris	Free	API plug-ins	SMTP, IMAP4 , POP3	Windows 95/98/ME, Windows NT/2000, Windows 3.x, Macintosh
Sendmail	UNIX platform	Free	C	SMTP	UNIX, not recommended
Althea	Ethan Sommer	Free	Perl	IMAP4	IMAP GUI solution for X Windows (Unix, Linux)

This chart compares the commercial e-mail client's capabilities, and cost. The iPlanet Messaging Server will be IMAP4, therefore if planning on using a commercial client, please make sure that it is capable of supporting **IMAP4**.

Althea - <http://althea.sourceforge.net/#download>

Eudora - <http://www.eudora.com/>

Outlook 2000 - <http://www.microsoft.com/office/outlook/>

Outlook Express - <http://www.microsoft.com/windows/oe/>

Pegasus - <http://www.pmail.com/>

Sendmail – <http://www.sendmail.org>, <http://www.sendmail.net>, <http://www.sendmail.com>